River/Stream Reach

NFK/A

NFK/B

NFK/C

NFK/Trib 1.19

Discharge in all NFK reaches altered more than 20% at EOM.

SFK/A

SFK/B

SFK/C* No change shown for February, March and April

SFK/D

SFK/E

SFK/Trib 1.19

SFK/Trib 1.24

Major changes in SFK reaches D, E and Tributary 1.24. If these reductions are due to loss of GW inputs, how will GW signatures be affected? Reach D goes from -42 prior to treated water discharge to +110 with discharge. 150% of the discharge is treated water. That might confuse returning salmonids.

UTC/A

UTC/B

UTC/C

UTC/D

UTC/E

UTC/F

UTC/Trib 1.19

No major flow changes to UTC from mining phase 1. Increasing treated water discharges to UTC could reduce changes in NFK and SFK. No estimates of flow changes under expanded development scdenario.

		Greatest Percent	Greatest percent
		Change in mean	change in mean
Greatest Percent Change in	Greatest Percent Change in	monthly discharge	monthly discharge
Monthly Mean Discharge at End	Monthly Mean Discharge at Post	at end of mine	post closure without
of Mine (EOM) under Scenario 0	Closure (PC) under Scenario 0 with		treated water
with Treated Water Discharge	Treated Water Discharge	water discharge	discharge
+23% Apr; -12 Jun	+10% Apr; -6% Oct	-31% Apr	-11.6% Mar
+28% Apr; -13% Jun	+13% Apr; -6% Oct	-33% Mar	-12.5% Mar
+105% Apr; -20% Jun	+45% Apr; -8% Oct	-100% Apr	-45% Apr
-100% (stream eliminated)	-100% (stream eliminated)	-100%	-100%
-2.8% Jan, Feb, Jul	+5.8% Apr; -0.5% Jul	-11.9% Apr	-10.8% Apr
+1.3% Apr; -3.2% Jul	+6% Apr; -0.6% Jul	-9.3% Apr	-8.2% Apr
+3.8% Jan; -4.5% Jul, Sep	+125% Jan	-80% Jan	-78% Jan
+110% Apr; -12% Jun	+65% Apr	-42% Apr	-32% Apr
-52% Apr; -40% annual average	-40% Mar; -30% annual average	-53% Mar	-40.5% Mar
-18% Apr	-18% Apr	-18% Apr	-18% Apr
+98% Feb	+8.2% Feb	+98% Feb	+18.5% Feb
+0.76 Apr; -0.18 Jul	+0.61 Mar; -0.02 Jun	-0.85% Mar	-0.39% Mar
+0.7% Apr; -0.18 Jul	+0.55 Mar; -0.02 Jun	-0.78% Mar	-0.33% Mar
+0.9 Apr; -0.21 Jul	+0.77 Mar; -0.02 Jun	-1.02% Feb	-0.42% Apr
+1.65% Apr; -0.3% Jul	+0.88 Mar; -0.16 Apr	-1.32% Mar	-0.4% Mar
+3.2% Apr; -0.4% Jul		2 400/ 84	O CCO/ NA
	+1.6% Mar; -0.3% Apr	-2.48% Mar	-0.66% Mar
+12.6% Apr	+1.6% Mar; -0.3% Apr +4.2% Mar; -0.8 Apr	-2.48% Mar '-6.6% Mar	-0.66% Mar -1.75% Mar & Apr

Impacts from modeled bulk tailings release

Exceed WQS for copper, molybdenum, zinc, lead, manganese, and cadmium Exceed WQS for copper, molybdenum, zinc, lead, manganese, and cadmium Exceed WQS for copper, molybdenum, zinc, lead, manganese, and cadmium Stream eliminated

Impacts from untreated contact water
Elevated metals at or below June flows (375 cfs). June flows are the annual peak suggesting elevated metals in all NFK reaches under all flows.

Elevated metals under all flows Elevated metals under all flows

Stream eliminated

Impacts from pyritic tailings release

Exceed WQS for copper, zinc, lead, manganese, cadmium and molybdenum. Exceed WQS for copper, zinc, lead, manganese, cadmium and molybdenum. Exceed WQS for copper, zinc, lead, manganese, cadmium and molybdenum. Exceed WQS for copper, zinc, lead, manganese, cadmium and molybdenum. Exceed WQS for copper, zinc, lead, manganese, cadmium and molybdenum.